AMENDMENTS TO THE CLAIMS

1. (**Original**) A method for treating an ischemic tissue in a subject in need thereof, comprising administering to said subject a therapeutically effective amount of enriched human endothelial generating cells and enriched human mesenchymal stem cells.

2. (**Currently Amended**) The method of claim 1, wherein the human endothelial generating cells are human ~~endothelial precursor~~ hemangioblast cells.

3. (**Currently Amended**) The method of claim 1, wherein the endothelial progenitor cells are generated in culture from ~~hematopoetic~~ hematopoietic stem cells, hemangioblasts or embryonic stem cells.

4. (**Original**) The method of claim 1, wherein treatment of the ischemic tissue induces
   (a) formation of blood vessels supplying blood to the ischemic tissue;
   (b) blood flow to the ischemic tissue;
   (c) oxygen supply to the ischemic tissue; or
   (d) a combination thereof.

5. (**Original**) The method of claim 1, wherein the endothelial generating cells are isolated from umbilical cord blood.

6. (**Original**) The method of claim 1, wherein the endothelial generating cells are isolated from bone marrow or from peripheral blood.

7. (**Currently Amended**) The method of claim 1, wherein the endothelial generating cells are enriched at least two-fold prior to ~~the prior to~~ administration to the subject.

8. (**Currently Amended**) The method of claim 1, wherein the endothelial generating cells are culture [[-]] expanded under endothelial cell-promoting culture conditions prior to administration to the subject.

9. (**Currently Amended**) The method of claim 1, wherein the endothelial generating cells are autologous to the subject.

10. (**Currently Amended**) The method of claim 1, wherein the endothelial generating cells are allogeneic to the subject.

11. (**Original**) The method of claim 1, wherein the endothelial generating cells are HLA compatible with the subject.

12. (**Original**) The method of claim 1, wherein the endothelial generating cells are $CD31^+$, $CD146^+$, $CD133^+$, $CD34^+$,VE-cadherin$^+$ or a combination thereof.

13. (**Original**) The method of claim 1, wherein the endothelial generating cells are $CD133^+$.

14. (**Original**) The method of claim 1, wherein the endothelial generating cells are $CD34^+$.

15. (**Currently Amended**) The method of claim 1, wherein the endothelial generating cells are generated in culture from ~~hematopoetic~~ hematopoietic stem cells, hemangioblasts or embryonic stem cells.

16. (**Currently Amended**) The method of claim 1, wherein the endothelial generating cells are endothelial progenitor cells, hemangioblasts or ~~hematopoetic~~ hematopoietic stem cells, or a combination thereof.

17. **(Original)** The method of claim 1, wherein the human mesenchymal stem cells are isolated from bone marrow.

18. **(Original)** The method of claim 1, wherein the human mesenchymal stem cells are isolated from umbilical cord blood.

19. **(Currently Amended)** The method of claim 1, wherein the human mesenchymal stem cells are culture-expanded prior to administering the human mesenchymal stem cells to the subject.

20. **(Original)** The method of claim 19, wherein the human mesenchymal stem cells are culture-expanded to enrich for cells containing surface antigens identified by monoclonal antibodies SH2, SH3 or SH4, prior to administering the human mesenchymal stem cells to the subject.

21. **(Currently Amended)** The method of claim 1, wherein the human mesenchymal stem cells are autologous to the subject.

22. **(Currently Amended)** The method of claim 1, wherein the human mesenchymal stem cells are allogeneic to the subject.

23. **(Original)** The method of claim 1, wherein the human mesenchymal stem cells are HLA compatible with the subject.

24. **(Currently Amended)** The method of claim 1, wherein the therapeutically effective amount of enriched human endothelial generating cells and enriched human mesenchymal stem cells is a safe amount.

25. **(Original)** The method of claim 1, wherein the therapeutically effective amount of enriched human endothelial generating cells comprises at least 1×10^4 human endothelial generating cells.

26. **(Currently Amended)** The method of claim 1, ~~wherein the~~ wherein the therapeutically effective amount of enriched human endothelial generating cells comprises [[is]] between 1×10^4 to 5×10^8 human endothelial generating cells.

27. **(Currently Amended)** The method of claim 2, wherein the therapeutically effective amount of the ~~endothelial generating~~ hemangioblast cells and the human ~~stromal~~ mesenchymal stem cells is a minimum number of cells necessary for increased blood flow induction to the ischemic tissue.

28. **(Currently Amended)** The method of claim 1, wherein the human endothelial generating cells and the human mesenchymal stem cells are administered in a ratio of from about 5:1 to about 1:5.

29. **(Original)** The method of claim 1, ~~wherein administering to the subject comprises~~ comprising administering to the subject a systemic infusion of the human endothelial generating cells.

30. **(Currently Amended)** The method of claim [[1]] 29, wherein ~~administering to the subject comprises an~~ the infusion ~~of the human endothelial generating cells~~ is into bone marrow.

31. **(Original)** The method of claim 1, wherein administering to the subject comprises an intra-arterial infusion of the human endothelial generating cells.

32. **(Original)** The method of claim 1, wherein administering to the subject comprises an

intracardiac infusion of the human endothelial generating cells.

33. (**Original**) The method of claim 1, administering to the subject comprises an intracoronary infusion of the human endothelial generating cells.

34. (**Original**) The method of claim 33, wherein said subject is in need of treatment for chronic myocardial ischemia.

35. (**Original**) The method of claim 1, wherein administering to the subject comprises using an intra-arterial catheter or a stent.

36. (**Currently Amended**) The method of claim 1, wherein said subject is in need of treatment for ischemia selected from ~~the group consisting of~~ limb ischemia, ischemic cardiomyopathy, myocardial ischemia, cerebrovascular ischemia, renal ischemia, pulmonary ischemia and intestinal ischemia.

37. (**Original**) The method of claim 1, wherein the human endothelial generating cells are genetically modified.

38. (**Original**) The method of claim 37, wherein the human endothelial generating cells are genetically modified to express a recombinant polypeptide.

39. (**Original**) The method of claim 38, wherein the recombinant polypeptide is VEGF, BFGF, SDF, CXCR-4 or CXCR-5.

40. (**Original**) The method of claim 1, further comprising administering to the subject at least one recombinant polypeptide.

41. (**Original**) The method of the claim 40, wherein the recombinant polypeptide is VEGF, BFGF, SDF, CXCR-4 or CXCR-5.

42. (**Original**) The method of claim 38 or 40, wherein the recombinant polypeptide promotes angiogenesis, vasculogenesis, or both.

43. (**Currently Amended**) The method of the claim 38 or 40, wherein the recombinant polypeptide is selected from among a growth factor, a cytokine, a ~~chemokines~~ chemokine or a receptor thereof.

44. (**Original**) A method for increasing blood flow to an ischemic myocardium in a subject in need hereof, comprising administering to the subject a therapeutically effective amount of enriched human endothelial precursor cells and enriched human mesenchymal stem cells.

45. (**Original**) The method of claim 44, wherein the endothelial precursor cells are $CD133^+$ human endothelial precursor cells.

46. (**Original**) The method of claim 1 or 44, wherein the endothelial precursor cells are $CD34^+$ human endothelial precursor cells.

47. (**Original**) The method of claim 44, wherein the endothelial generating cells are culture-expanded under endothelial cell-promoting culture conditions prior to administration to the subject.

48. (**Original**) The method of claim 44, wherein the endothelial precursor cells are isolated from umbilical cord blood.

49. (**Original**) The method of claim 44, wherein the human mesenchymal stem cells are

expanded in culture prior to administration to the subject.

50. (**Currently Amended**) The method of claim 44, wherein the human endothelial precursor cells and the human mesenchymal stem cells are administered to the subject by infusion into at least one coronary artery.

51. (**Original**) The method of claim 44, wherein said ischemic myocardium comprises an area of viable myocardium.

52. (**Original**) The method of claim 44, wherein the coronary artery is an epicardial vessel that provides collateral blood flow to said ischemic myocardium in the distribution of a chronic totally occluded vessel.

53. (**Original**) The method of claim 44, wherein the endothelial precursor cells and the mesenchymal stem cells are administered in a ratio from about 5:1 to about 1:5.

54. (**Currently Amended**) A method for improving blood flow to an ischemic myocardium having an area of viable myocardium in a subject in need thereof, comprising administering to said subject a therapeutically effective amount of enriched $CD133^+/CD34^+$ ~~endothelial precursor~~ cells isolated from umbilical cord blood, wherein the enriched $CD133^+/CD34^+$ ~~endothelial precursor~~ cells are administered by infusion into a coronary artery that is an epicardial vessel that provides collateral flow to said ischemic but viable myocardium in the distribution of a chronic totally occluded vessel, and wherein administering of the $CD133^+/CD34^+$ ~~endothelial precursor~~ cells results in improved blood flow to said ischemic myocardium.

55. (**Original**) The method of claim 54, further comprising administering to the subject enriched human mesenchymal stem cells.

56. **(Original)** The method of claim 54, wherein the human mesenchymal stem cells are isolated from said subject.

57. **(Currently Amended)** A method for inducing the formation of blood vessels in an ischemic tissue in a subject in need thereof, comprising administering to said subject a therapeutically effective amount of enriched human $CD133^{+}/CD34^{+}$ ~~endothelial generating~~ hemangioblast cells and enriched human mesenchymal stem cells.

58-61. **(Canceled)**

62. **(New)** The method of claim 1, wherein the wherein the enriched endothelial generating cells (i) are enriched CD133+ hemangioblasts purified from umbilical cord blood; and (ii) are allogeneic to the subject.

63. **(New)** The method of claim 62, wherein the enriched CD133+ hemangioblasts and the enriched human mesenchymal stem cells are administering to a subject afflicted with myocardial ischemia via intracoronary infusion.